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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Oliver Hurst-Hiller

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WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)

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EXAMINER

FERNANDEZ RIVAS, OMAR F

ART UNIT

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2129

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/806,271	Applicant(s) HURST-HILLER ET AL.	
	Examiner OMAR F. FERNANDEZ RIVAS	Art Unit 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-17 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-17 and 25-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an RCE filed by the Applicant entered on September 2, 2008.
2. The Office Actions of April 30, 2008, August 3, 2007, December 1, 2006 and June 2, 2006 are incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 1, 3-5, 10, 12-14 and 25 have been amended. Claims 9, 18-24 and 26 have been previously cancelled. Claims 1-8, 10-17 and 25-29 are pending on this application.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8 and 27-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For a method (or process) claim to be statutory under 35 USC 101, the method must be tied to another statutory class (such as a particular apparatus) or transform underlying subject matter (such as an article or materials) to a different state or thing. Therefore, the claim must positively recite the apparatus that accomplishes the method steps or positively recite the subject matter that is being transformed.

Claims 1-8, 10-17 and 25-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer system must set forth a practical application of judicial exception to produce a real-world result. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application.

For a claimed invention to be statutory the claimed invention must produce a useful, concrete, and tangible result. As the Supreme Court has made clear, “[a]n idea of itself is not patentable,” *Rubber-Tip Pencil Co. v. Howard*, 20 U.S. (1 Wall.) 498, 507 (1874); taking several abstract ideas and manipulating them together adds nothing to the basic equation. *In re Warmerdam*, 31 USPQ2d 1754 (Fed. Cir. 1994).

For a claimed invention to be statutory under 35 U.S.C. 101, the claims must provide a tangible result, and there must be a practical application, by either: 1) transforming (physical thing) or 2) by having the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/non-unpredictable), AND tangible (real world/non-abstract) result.

A claim that recites a computer that solely calculates a mathematical formula is not statutory.

In the present case, claim 1 describes a method for obtaining user satisfaction data regarding the performance of a search mechanism in response to user queries. The user satisfaction data is used to monitor the performance of a search mechanism. However, the claim fails to provide a useful result because the claimed subject matter fails to sufficiently reflect at least one practical utility set forth in the

Art Unit: 2129

descriptive portion of the specification. More specifically, while the described practical utility (utilities) is (are) directed to using predicted user satisfaction data to improve a search mechanism, the claimed subject matter relates ONLY to generating prediction data to monitor a search mechanism without any specific purpose or use. The claim is directed simply generation of data fore monitoring a search mechanism, which is simply generating data without any specific purpose or use. Generating data without providing it to a device that can make use of that data is not a practical and tangible result since data alone has no physical structure and does not itself perform any useful, concrete and tangible result.

The claim also fails to produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for generating prediction data to monitor a search mechanism. This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value.

Claims 2-8 and 27-29 further limit claim 1 but fail to cure the deficiencies set forth above and are rejected on the same basis.

Claims 10-17 and 25 recite limitations similar to that of claims 1-8 and 27-29 and are rejected on the same basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Biebesheimer et al. (US Patent Application Publication #2002/0152190, referred to as **Biebesheimer**).

Claims 1, 10 and 25

Biebesheimer anticipates a method for obtaining predicted user satisfaction data (not further defined) regarding the performance of a search mechanism which provides search results in response to user queries (**Biebesheimer**: abstract, L1-26; page 2, pars 16-20; page 3, par 30; page 5, pars 42-44; Examiner's Note (EN): item 9 applies. Obtaining a response set based on relevancy to the user's query is obtaining predicted user satisfaction data. Moreover, the indexing function determines the value of the search results (the response set) for a user in their context. Also note the weighting function (user satisfaction) of the Adaptive Indexing), comprising: storing interaction of the user with the search results obtained in response to a query (**Biebesheimer**: pg. 2, pars 13-20; pg. 3, par 32; pg. 4, par 37; pgs. 4-5, pars 41-44; pg. 6, pars 50-51; pg. 9, par 73; pg. 12, claims 5, 7; pg. 13, claim 24; Figs. 1 and 6; EN: item 9 applies. The user's interaction records include resources chosen or rejected by the user from the list displayed); determining **at least one** predictive pattern model for predicting user satisfaction with the search results from the stored interaction of the user with the

Art Unit: 2129

search results (**Biebesheimer**: pg. 2, pars 13-20; pg. 3, par 32; pg. 4, par 37; pgs. 4-5, pars 41-45; pg. 6, pars 50-51; pg. 9, par 73; pg. 12, claims 5, 7; pg. 13, claim 24; Figs. 1 and 6; EN: item 9 applies. The resource indexing functions are predictive pattern models. Note that each function predicts a response set that the user eventually selected (user satisfaction)); storing the **at least one** predictive pattern model (**Biebesheimer**: pg. 2, pars 13-20; pg. 3, par 32; pg. 4, pars 37-38; pgs. 4-5, pars 41-45; pg. 6, pars 50-51; pg. 9, par 73; Figs. 1 and 6) and applying said predictive pattern model to context-based user behavior data to determine a satisfaction value of the user with the query that indicates the satisfaction of the user with the search results, wherein the context-based user behavior data comprises user feedback data and context data associated with the user feedback data, the context based user behavior data acquired after receipt by a user of the search results (**Biebesheimer**: pg. 2, pars 13-20; pg. 3, par 32; pg. 4, pars 37-39; pgs. 4-5, pars 41-45; pg. 6, pars 50-51; pg. 9, par 73; Figs. 1 and 6; EN: item 9 applies. Note that the adaptive indexing function uses an evaluation metric (such as the coverage of the resources eventually selected by a user given a query/context pair) from the user's feedback to optimize the indexing functions to maximize the number of successful retrievals); and generating predicted **user satisfaction data** based on the application of the predictive pattern to the context-based user behavior data, the predicted user satisfaction data is **an indication of** satisfaction that a user experiences in evaluating search results, wherein the predicted user satisfaction data is used to monitor the performance of a search mechanism (**Biebesheimer**: abstract, L1-12; page 1, par 2; page 2, pars 1-20; page 3, pars 30-32;

Art Unit: 2129

pages 4 and 5 pars 37-45; pg. 6, pars 50-51; pg. 9, par 73; Figs. 1 and 6; EN: item 9 applies. The resource set is presented to the user based on the degree of fit (user satisfaction data) with the user's most important context variables as indicated by the prior use of the system as well as by context choices of the current query. The adaptive indexing functions will be optimized based on an evaluation metric applied to the user interaction feedback to maximize the number of successful retrievals (monitoring the performance of the search mechanism)).

Claims 2 and 11

Biebesheimer anticipates storing at least one predictive pattern model comprises utilizing data mining techniques (not further defined) to determine at least one predictive pattern for user satisfaction (**Biebesheimer**: page 5, par 43-44; EN: supervised learning is a data mining technique).

Claims 3 and 12

Biebesheimer anticipates said context-based user behavior data comprises explicit user feedback data (**Biebesheimer**: pages 4 and 5, par 41; page 6, pars 49-50; page 7, par 64, L1-12; page 8, pars 66-67; EN: obtaining data from the user defining the query is explicit user feedback as defined in page 2, par 17 of the present application).

Claims 4 and 13

Biebesheimer anticipates said context-based user behavior data comprises implicit user feedback data (**Biebesheimer**: page 2, par 19, L6-22; page 5, par 41, L7-25; page 6, par 50; EN: user interactions is user behavior data; the selections made by

Art Unit: 2129

the user are implicit feedback as defined in page 2, par 17 of the present application).

Claims 5 and 14

Biebesheimer anticipates said context-based user behavior data is selected from the group comprising: user navigation to a new page using a hyperlink; user navigation to a new page using a history list; user navigation to a new page using an address bar; user navigation to a new page using a favorites list; user scrolling behavior; user document printing behavior; user adding a document to said favorites list; user switching focus to a different application; user switching focus back from a different application; user closing a window; user dwell time behavior; user initiation of a new query; sequences of user behaviors; and user inactivity without switching focus from a window relating to said performed query (**Biebesheimer**: page 3, pars 30-32; page 5, par 41, L7-17; pg. 6, pars 49-50; pg. 9, pars. 72-73; EN: redefining a query is initiating a new query, user interactions is a sequence of user behavior).

Claims 6 and 15

Biebesheimer anticipates said application of said predictive pattern model yields predicted user satisfaction data regarding said search mechanism (**Biebesheimer**: page 2, par 19; page 4, par 37; EN: the Adaptive Indexing algorithm applies the predictive pattern. Maximizing the number of successful retrievals by improving the resource indexing functions is yielding predicted user satisfaction data regarding the search mechanism. Also note that the indexing function retrieves the response set most relevant to the user), and where said method further comprises: displaying said predicted user satisfaction data (**Biebesheimer**: page 6, par 49; page 9, par 73; EN: the

Art Unit: 2129

ordered response set is predicted user satisfaction data).

Claims 7 and 16

Biebesheimer anticipates said application of said predictive pattern model further comprises isolating a set of said performed queries which are unsatisfactory and which share a common characteristic (**Biebesheimer**: page 3, par 30, L19-28; page 7, par 59-60; page 8, par 70; EN: the exclusionary filters isolate unsatisfactory search queries).

Claims 8 and 17

Biebesheimer anticipates said context-based user behavior data comprises a testing set of context-based user behavior data (**Biebesheimer**: page 3, par 33, L1-14; EN: item 9 applies. The minimal user context vector is a testing set of context based user behavior).

Claim 27

Biebesheimer anticipates isolating problematic queries based on the predicted user satisfaction data (**Biebesheimer**: page 2, par 19, L6-22; page 5, pars 43.and 44).

Claim 28

Biebesheimer anticipates generating a summary of measured satisfaction based on the predicted user satisfaction data (**Biebesheimer**: page 5, par 45, L9-23; pg. 6, pars 50-51; pg. 9, par 73; EN: generating a response set based on the scoring or relevance (satisfaction data) to the user's query).

Claim 29

Biebesheimer anticipates monitoring a search mechanism responsive to the predicted user satisfaction data (**Biebesheimer**: page 2, par 19; page 4, par 37; page 5,

Art Unit: 2129

pars 42-44; pg. 6, pars 50-51; pg. 9, par 73; Fig. 1; EN: item 9 applies. If the system is learning, then some monitoring is taking place).

Examination Considerations

5. Examiner has cited particular columns and line numbers (or paragraphs) in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific imitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the Applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. The entire reference is considered to provide disclosure relating to the claimed invention.

6. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 105455, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the

Art Unit: 2129

art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

7. Examiner's Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

8. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

9. Examiner's Opinion: items 6-8 apply. The claims and only the claims form the metes and bounds of the invention. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rose et al. US Patent #5,724,567

Art Unit: 2129

Chen et al. US PGPUB #2004/0111397

Cheung et al US PGPUB #2004/0054661

Rebane US PGPUB #2003/0130983

11. Claims 1-8, 10-17 and 25-29 are rejected.

Correspondence Information

12. Any inquires concerning this communication or earlier communications from the examiner should be directed to Omar F. Fernández Rivas, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-2589 or email omar.fernandezrivas@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-2589.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, David Vincent, may be reached at (571) 272-3080.

Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

/Omar F. Fernández Rivas/
Examiner, Art Unit 2129
Friday September 19, 2008.

/David R Vincent/
Supervisory Patent Examiner, Art Unit 2129